

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A system for producing guiding information for a user in a vehicle, comprising:

means for compiling information received from a plurality of information sources;

means for generating a specification to retrieve specific data from the plurality of information sources in a specific format for outputting to the user ;

means for presenting the compiled information through a plurality of media including:

- means for processing information from the plurality of said information sources to create the specification of a message comprising an information object,

- means for determining a preferred medium for presentation of said message in a first format, and for determining an alternative medium for presentation of said message in a second format;

- means for retrieving information associated with said information object, and

- means for outputting information associated with said information object for presentation on a selected one of said preferred medium and said alternative medium, wherein said selection is based on availability of the preferred medium and a priority associated with the output of information.

2. (Previously Presented) The system of claim 1, wherein said means for outputting information comprises:

means for transcoding information associated with said information into said second format for presentation on said alternative medium, wherein said second format is different from the original first format specified in the specification message.

3. (Previously Presented) The system of claim 1, wherein said means for outputting information comprises:

means for replacing said information object by a stored abstraction of the object from a symbol database.

4. (Previously Presented) The system of claim 1, wherein said information object includes at least one of a vehicle information object, a navigation information object, a user information object and a target information object.

5. (Previously Presented) The system of claim 4, wherein the navigation information object includes road section objects having at least one of length, service points, road tolls and points of interest.

6. (Previously Presented) The system of claim 4, wherein the target information object includes a representation of another moving vehicle and said at least one presentation information object includes a representation of an instantaneous route to a meeting place at least fulfilling predetermined characteristics.

7. (Previously Presented) The system according to claim 1, further comprising:
- means for determining a state of the system, and
- means for enforcement of rules applied to the specification message of at least one information object and the system state, the rules further being operative to change the system state.

8. (Previously Presented) The system of claim 7, wherein the system state includes allocation of available media to information objects, said change of system state involving a reallocation of at least one medium.

9. (Previously Presented) The system of claim 7, wherein said means for enforcement of rules generates a request for transcoding of said at least one information object.

10. (Previously Presented) A method for producing guiding information for a user in a vehicle, comprising the steps of:

processing information compiled from the plurality of information sources to generate a specification of a message comprising at least one information object, wherein said specification message includes information for retrieval of specified information related to said at least one information object;

forming presentation information at least partly according to the specification message, where said forming step further includes:

determining a preferred medium for presentation of information related to said at least one information object in a first format according to said specification message, and determining an alternative medium for presentation in a second format;

retrieving presentation information associated with said at least one information object according to said specification message and selected format; and

presenting said presentation information on a selected one of said preferred medium and said alternative medium.

11. (Previously Presented) The method of claim 10, further comprising transcoding information associated with said at least one information object into said second format for presentation on said alternative medium, wherein said second format is different from the original first format specified in the message specification.

12. (Previously Presented) The method of claim 10, further comprising replacing at least one information object by a stored abstraction of the object from a symbol database.

13. (Previously Presented) The method of claim 10, wherein said at least one information object includes at least one of a vehicle information object, a navigation information object, a user information object and a target information object.

14. (Previously Presented) The method of claim 13, wherein the navigation information object includes road section objects having at least one of length, service points, road tolls, and points of interest.

15. (Previously Presented) The method of claim 13, wherein the target information object includes a representation of another moving vehicle and said at least one information object includes a representation of an instantaneous route to a meeting place at least fulfilling predetermined characteristics.

16. (Previously Presented) The method according to claim 13, wherein information in said target information object is changeable in dependence of information in at least one of said vehicle information object, said navigation information object and said user information object.

17. (Previously Presented) The method according to claim 10, further comprising the steps of:

determining a system state, and

enforcing rules applied to the specification message of at least one information object and the system state, the rules further being operative to change the system state.

18. (Previously Presented) The method of claim 17, wherein the system state includes allocation of available media to information objects, and said change of system state involves reallocation of medium.

19. (Previously Presented) A method of generating real-time guiding information for a user's navigation system, the method comprising the steps of:

receiving information from a plurality of sources at the navigation system, wherein the plurality of sources include sensors monitoring current conditions directly

affecting the user and a traffic and weather broadcast for real time traffic and weather information, both the sensors and the broadcast providing real time data to the navigation system;

compiling the information from the plurality of sources;

utilizing the compiled information to generate a guiding information message to include an information object, the information object comprising predetermined user specifications and additional data as required, the additional data including stored data, sensor related data and data related to information objects;

determining a presentation format for the guiding information message according to a medium that is available to the user and appropriate to the user's circumstances according to a predetermined priority level; and

presenting the information object on a selected medium according to a format specification.

20. (Previously Presented) The method of claim 19, wherein the information object comprises one or more of:

a user information object for providing user specifications, the specifications including dynamic data pertaining to trip characteristics and static data pertaining to user vehicle characteristics;

a vehicle information object for providing data relating to the immediate environment of the vehicle the data including speed, fuel, outside temperature, the current weather and traffic information;

a target information object for including position of the target and other data according to specifications available from a user profile; and

a navigation information object for providing data relating to a position of the user and a position of the target.

21. (Currently amended) A system for producing guiding information for a user in a vehicle, said system comprising:

means a navigation manager for processing information compiled from a plurality of information sources to generate a specification of a message comprising at least one information object, wherein said specification message includes information for retrieval of specified information related to said at least one information object;

means a presentation manager for forming presentation information at least partly according to the specification message, where said presentation manager further includes:

means a media handler for determining preferred medium for presentation of information related to said at least one information object in a first format according to said specification, and for determining an alternative medium for presentation in a second format;

means an addressing unit for retrieving presentation information associated with said at least one information object according to said specification message and selected format; and

means a plurality of media drivers for outputting said presentation information on a selected one of said preferred medium and said alternative medium.